

#### ABSTRACT OF THE DISCLOSURE

A MALDI mass spectrometer has a laser steering assembly operable to steer or otherwise direct movement of a laser focus over the MALDI sample being tested. Such a laser steering assembly may include a mirror array having a pair of  
5 independently controlled mirrors. The first of such a pair of mirrors is operable to move the laser focus along the X-axis of the MALDI sample, whereas the second of such a pair of mirrors is operable to move the laser focus along the Y-axis of the MALDI sample. A method of operating a MALDI mass spectrometer is also disclosed.